

<u>ENGINE - LP COMPRESSOR - TO IMPROVE REMOVABILITY OF INNER RACE ON THE PTO SHAFT - CATEGORY CODE 6 - MOD.ENG-72-0214</u>

1. Planning Information

A. Effectivity

(1) Aircraft: (a) Airbus A320

(b) Airbus A321

(c) McDonnell Douglas MD90

(2) Engine: (a) V2527-A5 Engines prior to Serial Number.V10167.

(b) V2530-A5 Engines prior to Serial Number.V10167.

(c) V2525-D5 Engines prior to Serial Number.V20051.

(d) V2528-D5 Engines prior to Serial Number.V20051.

B. <u>Concurrent Requirements</u>

None.

C. Reason

(1) Condition

Instances have occurred where the Retaining Ring on the PTO shaft has become stuck to during disassembly, making it difficult to remove the Inner Roller Bearing (Inner Race). This could result in damage to the inner race.

(2) Background

It was determined that unequal and insufficient deformation of the Retaining Ring occurred when removing the Inner Race using the existing tools.

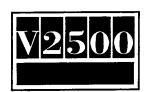
(3) Objective

To introduce a new Inner Roller Bearing (Inner Race) and Retaining Ring that incorporate features designed to ensure maintainability.

(4) Substantiation

The 930 hours endurance test and several disassembly checks have been completed.

(5) Effects of bulletin on workshop procedures:



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Removal/Installation Disassembly/Assembly Cleaning Inspection/Check Repair Testing Not affected Affected (See Supplemental Information) Not affected Not affected Not affected Not affected

(6) Supplemental Information

(a) Disassembly is revised due to new configuration of the Inner Roller Bearing (Inner Race) and Retaining Ring.

D. <u>Description</u>

- (1) The changes introduced by this Service Bulletin are as follows:
 - (a) The new 5A16O5, Inner Roller Bearing (Inner Race) will be introduced to increase number of squeezing slots from four to eight (See Figure 1).
 - (b) The new 5A1505, Retaining Ring will be introduced to reduce free diameter of the ring (See Figure 1).
- (2) The new IAE1J12548 tools should be used to remove the new 5A1605 Inner Roller Bearing (Inner Race) from the PTO shaft.

E. Approval

The Part Number changes and part modifications described in Sections 2 and 3 of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Model listed.

F. Compliance

Category Code 6

Accomplish when the subassembly (i.e. Modules, Accessories, Components, Build groups) is disassembled sufficiently to afford access to the affected part.

G. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

Venue Estimated Manhours

(1) In service Not applicable

(2) At overhaul Not affected



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- H. Material Price and Availability
 - (1) Modification kit is not required.
 - (2) See "Material Information" section for prices and availability of future spares.
- I. Tooling Price and Availability

Tool No. Qty. Description Function Avail.

New tools required:

IAE1J12548 1 Fixture, Holding Remove Inner 1)
-Retainer Race

 Indicates that Tool Design Aperture card is currently available from IAE.

- J. Weight and Balance
 - (1) Weight change None
 - (2) Moment arm No effect
 - (3) Datum Engine front mount centerline (Power Plant Station (P.P.S.) 100)
- K. Electrical Load Data

This Service Bulletin has no effect on the aircraft electrical load.

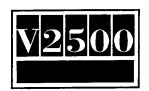
- L. <u>References</u>
 - (1) Internal Reference No.

EC94VJ033

(2) Other References

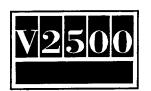
V2500 Engine Illustrated Parts Catalog (S-V2500-2IA, S-V2500-3IA)

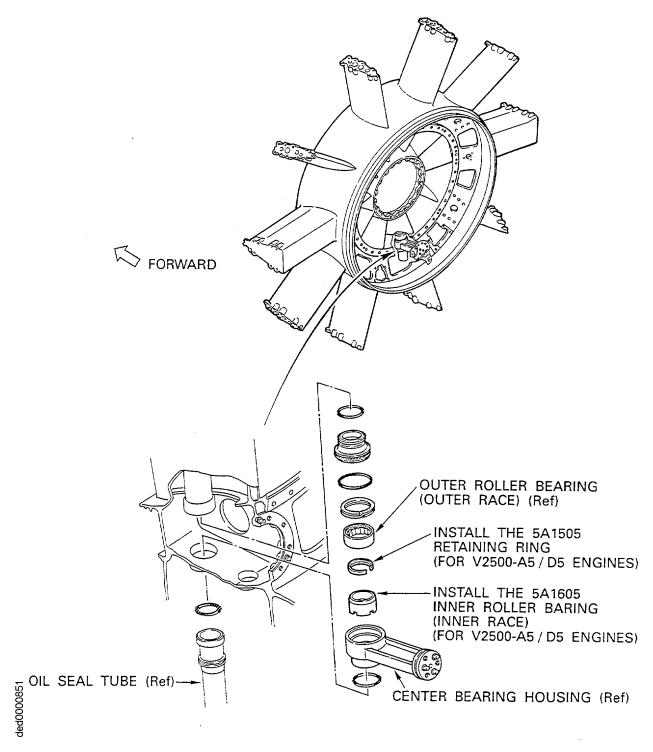
V2500 Engine Manual (E-V2500-1IA, E-V2500-3IA).



M. Other Publications Affected;

- (1) V2500 Engine Illustrated Parts Catalog (S-V2500-2IA, S-V2500-3IA), Chapter/Section 72-32-05.
- (2) V2500 Engine manual (E-V2500-1IA), Chapter/Section 72-32-00, Disassembly-05 Config-2.
- (3) V2500 Engine Manual (E-V2500-3IA), Chapter/Section 72-32-00, Disassembly-05.





Location of the Inner Roller Bearing Fig.1



2. Accomplishment Instructions

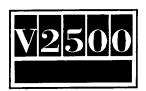
A. Rework Instructions

There are no rework instructions necessary to accomplish this bulletin.

B. Assembly Instructions

Install the 5A1605, Inner Roller Bearing (Inner Race) and the 5A1505, Retaining Ring by the approved procedures in Reference L.(2) Chapter/Section 72-32-00, Assembly-11 (Refer to Figure 1).

- C. Recording Instructions
 - (1) A record of accomplishment is necessary.



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3. Material Information

Applicability: For V2500-A5 and V2500-D5 engines to incorporate this Bulletin.

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A. Kits associated with this Bulletin:

None.

B. Parts affected by this Bulletin:

New Part No. (ATA No.)	Qty	Est'd Unit Price (\$)	Keyword	Old Part No. (IPC No.)	Instructions Disposition
5A1605 (72-32-05)	1	386.00	.Bearing, Roller Inner	5A1428 (01-270)	(A)(B)(S1)
5A1505 (72-32-05)	1	121.00	.Ring Retaining	5A1430 (01-275)	(A)(B)(C) (S1)

C. <u>Instruction/Disposition Code Statements:</u>

- (A) New part is currently available for sale.
- (B) Old part will no longer be available for sale.
- (C) Old and new parts are expendable part.
- (S1) New parts coded (S1) must replace old parts coded (S1) as a COMPLETE SET per engine.

NOTE: The estimated 1996 unit prices shown are provided for planning purposes only and do not constitute a firm quotation. Consult IAE Price Catalog or contact IAE's Spare Parts Sales Department for information concerning firm prices.

